



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/707,706

01/06/2004

I-TANG JIANG

9885-US-PA

1705

31561

7590

06/19/2006

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER

MOORE, KARLA A

ART UNIT

PAPER NUMBER

1763

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/707,706

Applicant(s)

JIANG ET AL.

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☒ Claim(s) 8-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6 January 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of U.S. Patent No. 5,346,518 to Baseman et al.

4. Applicant's admitted prior art discloses a cassette substantially as claimed in Figures 1-3 and comprising: an outer casing (102) with a front surface (140) having a plurality of slots (100) and two sides surfaces (130A and 130B) having a plurality of holes (104); a plurality of braces (106) positioned at corner edges inside the outer casing; a plurality of side plates (108) attached to the braces corresponding to each slot for supporting a substrate.

5. However, Applicant's admitted prior art fails to disclose a plurality of obstruction pieces positioned inside the outer casing to block the holes.

6. Baseman et al. teaches the use of obstruction pieces (Figure 15, 138) positioned in a hole of a surface of a cassette (40) for the purpose of precluding vapor contamination from entering the cassette (column 18, row 57 through column 19, row 10).

Art Unit: 1763

7. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provide an obstruction piece in a hole of Applicant's admitted prior art in order to preclude contamination from entering the cassette as taught by Baseman et al.

8. With respect to claim 9, Applicant's admitted prior art further discloses the cassette comprising a plurality of horizontal screw sets (300), and each set of horizontal screws engages with a bottom plate of the outer casing near the hole. See Figures 1-3.

9. With respect to claim 10, each obstruction piece comprises a fixed part (146) and an obstructing part (140, 142, 142'), the fixed part is firmly attached to the outer casing and the obstructing part blocks the corresponding hole. See Figure 16 of Baseman et al.

10. With respect to claim 11, the fixed part of the obstruction pieces are L-shaped (see Figure 16).

11. With respect to claim 12, the braces are set on all four corners inside the outer casing and the side plates are attached to all four braces and correspond with each slot on the same horizontal plane (see Figures 1-3 of Applicant's admitted prior art).

12. With respect to claim 13, the four side plates within the outer casing on the same horizontal plane corresponding to each slot support the corners of the substrate (see Figures 1-3 of Applicant's admitted prior art).

### ***Response to Arguments***

13. Applicant's arguments filed 10 April 2006 have been fully considered but they are not persuasive.

14. In response to applicant's argument that AAPA and Baseman are not combinable, Examiner first of all notes that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). AAPA discloses a cassette for holding wafers; so does Baseman. While the cassette disclosed in Baseman, which is relied on in the rejections, may be a different type of

Art Unit: 1763

cassette, it can nevertheless be considered a cassette that holds wafers. Examiner notes that the courts have ruled that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claims 1-8 do not set forth recitations requiring that the cassette is a specific type of cassette or that it is capable of being used in a specific manner. The claim is very broad and does not rule out applying a reference such as Baseman against the pending claims.

15. With respect to the combination of AAPA and Baseman, Examiner does not agree that the cassette of the AAPA is always set in a reaction chamber maintained in a vacuum state and therefore there is no reason to combine the references. While it may be true that this is where the cassette is positioned during processing, it is not always the case. It would be during these times, when the cassette is not inside a reaction chamber that maintaining cleanliness of the cassette by blocking openings would be beneficial. So that when the wafers to be processed at a later date, or that are already processed, remain an expected level of cleanliness.

***Allowable Subject Matter***

15. Claims 1-7 are allowed.

14. The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach or fairly suggest a cassette for hold substrates as claimed and specifically comprising: a plurality of obstruction pieces positioned inside an outer casing of the cassette corresponding to holes at a bottom section of the sidewalls of the outer casing, wherein each obstruction piece comprises a fixed part and an obstructing part, the fixed part attaches firmly to a bottom plate of the outer casing, and the obstructing part blocks the corresponding hole.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1763

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore  
Primary Examiner  
Art Unit 1763  
13 June 2006